APPARATUS FOR CONSTRUCTING A CAPACITOR STACK FOR A FLAT CAPACITOR

## **REMARKS**

This responds to the Office Action dated November 22, 2005.

Claims 5, 9, and 17 are canceled. Claims 1-4, 6-8, 10-16, and 18-29 are now pending in this application.

# Claim Objections

Claim 4 was objected to due to an informality. Applicant respectfully request withdrawal of this objection. In the amendment and response filed September 1, 2005, Applicant amended claim 4 to replace "place" with "placed".

## §102 Rejection of the Claims

Claims 1-4 were rejected under 35 U.S.C. § 102(b) as being anticipated by IBM Technical Disclosure Bulletin NN81024261.

Applicant traverses since the cited reference does not include each limitation recited in the claim. For instance, Applicant cannot find in the cited reference means for continually applying a compression force on the capacitor stack until each of the plurality of capacitor layers have been placed onto the capacitor stack, as recited in claim 1. In contrast, the NN81024261 reference discusses that fixture 12 holds "a stack 14 of parts together so the parts may be cemented together (by baking) while so held." (Page 1, NN81024261). In other words, stack 14 is compressed after it is stacked.

The Office Actions states that "NN81024261 is structurally identical to the limitations as worded in the apparatus claim and thus capable of meeting the intended use;" (Page 12 of Office Action), and "the locking tapers (item 48) are capable of being used to holding in place the capacitor sheet such that a continually applied compression force is applied on the capacitor stack." (Page 12). Applicant traverses. Claim 1 is a means-plus-function claim under 35 U.S.C. § 112, paragraph 6. As required by MPEP 2183, the prior art must perform the identical function specified in the claim. Here, the NN8102461 reference apparatus performs a different function. As discussed, the fixture of the reference merely holds parts together while being baked. It has

no discussion of being used for continual compression while stacking. Moreover, even if a capacitor layer was placed in the fixture, the apparatus would still not be capable of continually applying a compression force on the capacitor stack until each of the plurality of capacitor layers have been placed onto the capacitor stack, as recited in claim 1. Applicant cannot discern structure in the NN81024261 reference capable of being used to apply a continually applied compression force on the capacitor stack until each of the plurality of capacitor layers have been placed onto the capacitor stack, as claimed. The Examiner states that locking tapers 48 could apply compression. However, this is not necessarily so, since the space between items 48 and plunger 40 would preclude such a function for the items 48. In contrast, the compression force of NN81024261 can only be applied after a stack is formed. Reconsideration and allowance is respectfully requested.

Claims 2-4 include each limitation of their parent claim and are therefore also not anticipated by the cited reference. Reconsideration and allowance is respectfully requested.

Claim 1 was rejected under 35 U.S.C. § 102(b) as being anticipated by Breyen (U.S. Patent No. 6,042,624).

Applicant traverses since the cited reference does not include each limitation recited in the claim. For instance, Applicant cannot find in the cited reference means for continually applying a compression force on the capacitor stack until each of the plurality of capacitor layers have been placed onto the capacitor stack, as recited in claim 1. In contrast, the Breyen reference discusses that spring loaded pins 209a - 209e are alignment pins that retract when top layer 208 is pressed downward. (Col. 24, lines 4-8). Accordingly, it appears that pins 209a – 209e do not provide any force on the capacitor stack since the alignment pins are located at the periphery of the capacitor stack. (See Col. 30, lines 8-18). Moreover, pins 209a -209e and top layer 208 do not apply a continually applied compression force on the capacitor stack. In contrast, the force of top layer 208 is only applied after the stack is formed. (See col. 24, lines 16-17). This is not continually applying a compression force on the capacitor stack until each of the plurality of capacitor layers have been placed onto the capacitor stack, as claimed.

The Office Action states that "Breyen is capable of being used to provide continual compression." (Page 11 of Office Action). Applicant traverses. Claim 1 is a means-plusSerial Number: 10/637,604

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function claim under 35 U.S.C. § 112, paragraph 6. As required by MPEP 2183, the prior art must perform the identical function specified in the claim. Here, the Breyen reference apparatus performs a different function. As discussed, the Breyen reference apparatus discusses pins 209a-209e as alignment pins. Moreover, even if a capacitor layer was placed on top of the pins, the apparatus would still not be capable of continually applying a compression force on the capacitor stack *until* each of the plurality of capacitor layers have been placed onto the capacitor stack. Top layer 208 of Breyen would inherently interfere with trying to place a layer on a stack (manually or not) while the stack is continually compressed. To manually hold down the stack, top layer 208 must be moved and moving it would allow the stack to be uncompressed for at least some amount of time. Reconsideration and allowance is respectfully requested.

Claims 1-4 were rejected under 35 U.S.C. § 102(b) as being anticipated by Hahne (WO 98/51602).

Applicant traverses since the cited reference does not include each limitation recited in the claim. Again, Applicant cannot find in the cited reference a fixture for holding a plurality of capacitor layers, or means for continually applying a compression force on the capacitor stack until each of the plurality of capacitor layers have been placed onto the capacitor stack. In contrast, the cited reference discusses a device for blocking a stack of objects, such as newspapers or magazines. (Abstract of Hahne). Applicant cannot find any discussion of a fixture for holding a plurality of capacitor layers. Moreover, the cited reference does not indicate that the stack is continually in compression as it is being stacked. The abstract of the reference merely states that the device can press a stack. It appears the stack is formed and then placed into the device so it can be blocked.

The Office Action states that "Hahne is capable of continual compression." (Page 11 of Office Action). Applicant traverses. Claim 1 is a means-plus-function claim under 35 U.S.C. § 112, paragraph 6. As required by MPEP 2183, the prior art must perform the identical function specified in the claim. Here, the Hahne reference apparatus performs a different function. As discussed, the Hahne reference apparatus discusses a device that can press a stack, after it is stacked. Hahne is not capable of continually applying a compression force on the capacitor stack until each of the plurality of capacitor layers have been placed onto the capacitor stack, as

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claimed. It appears electrodes 15, 16, of Hahne can move to allow a stack to be placed in the apparatus, but there is no structure shown in the Hahne reference to apply a continual compression force on the capacitor stack until each of the plurality of capacitor layers have been placed onto the capacitor stack, as claimed. Reconsideration and allowance is respectfully requested.

Claims 2-4 include each limitation of their parent claim and are therefore also not anticipated by the cited reference. Reconsideration and allowance is respectfully requested.

# §103 Rejection of the Claims

Claims 6, 7, 10-16, 18 and 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over IBM Technical Disclosure Bulletin NN81024261 as applied to claims 1-4 above, and further in view of Farahmandi (U.S. Patent No. 6,233,135).

# Claims 6, 7, and 10

Applicant traverses the rejection of claim 6 since, even if combined, the combination does not include each limitation recited in the claim. For instance, Applicant cannot find in the combination an upper member adapted to move while the placement member holds down each capacitor layer as each capacitor layer is placed onto the stack such that the stack is continually in compression.

Farahmandi discusses a device to jet spray metal. It does not hold down each capacitor layer as each capacitor layer is placed onto the stack. The Office Action, in the Response to Arguments section of the Office Action acknowledges that Farahmandi discusses a sprayer. The Office Action states that the layers are then placed into a stack. However, the sprayer of Farahmandi is not capable of holding down a stack, as claimed. Neither of the cited references includes a placement member that holds down each capacitor layer as each capacitor layer is placed onto the stack such that the stack is continually in compression, as claimed.

Moreover, NN81024261 does not appear to discuss an upper member adapted to move while a placement member holds down each capacitor layer as each capacitor layer is placed onto the stack such that the stack is continually in compression, as suggested by the Office Action.

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Claims 7 and 10 depend from claim 6 and are therefore also not obvious in view of the cited references. Reconsideration and allowance is respectfully requested.

### Claims 11-16, 18, and 20

Applicant traverses the rejection of claim 11 since, even if combined, the combination does not include each limitation recited in the claim. For instance, Applicant cannot find in the combination an upper member adapted to move while the placement member holds down each capacitor layer as each capacitor layer is placed onto the stack such that the stack is continually held down by either the upper member or the placement member until each of the plurality of capacitor layers is placed.

Again, Farahmandi discusses a device to jet spray metal. It does not hold down each capacitor layer as each capacitor layer is placed onto the stack. The Office Action, in the Response to Arguments section of the Office Action acknowledges that Farahmandi discusses a sprayer. However, a sprayer is not capable of holding down a stack. Accordingly, neither of the cited references includes a placement member that holds down each capacitor layer as each capacitor layer is placed onto the stack, as claimed.

Moreover, NN81024261 does not include an upper member adapted to move while a placement member holds down each capacitor layer as each capacitor layer is placed onto the stack such that the stack is continually held down by either the upper member or the placement member until each of the plurality of capacitor layers is placed, as suggested by the Office Action.

Claims 12-16, 18, and 20 depend from claim 11 and are therefore also not obvious in view of the cited references. Reconsideration and allowance is respectfully requested.

Claims 2-4 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Breyen (U.S. Patent No. 6,042,624) as applied to claim1 above, and further in view of Hahne (WO 98/51602).

Applicant believes claims 2-4 are not obvious in view of the cited references since, even if combined, the combination does not include each limitation recited in parent claim 1. As

discussed above, Applicant cannot find in either of these references, either singly, or in combination, means for continually applying a compression force on the capacitor stack until each of the plurality of capacitor layers have been placed onto the capacitor stack, as recited in claim 1.

Moreover, there is no motivation or suggestion to combine these two references since they are from completely different fields. Breyen is directed to capacitors for implantable medical devices while Hahne discusses a device to block a stack of object such as newspapers and magazines. One skilled in the art would not look from one field to the other. Reconsideration and allowance is respectfully requested.

Claims 6, 7, 10-16, 18 and 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Breyen (U.S. Patent No. 6,042,624) and Hahne (WO 98/51602) as applied to claims 2-4 above, and further in view of Farahmandi (U.S. Patent No. 6,233,135).

### Claims 6, 7, and 10

Applicant traverses the rejection of claim 6 since, even if combined, the combination does not include each limitation recited in the claim. For instance, Applicant cannot find in the combination an upper member adapted to move while the placement member holds down each capacitor layer as each capacitor layer is placed onto the stack such that the stack is continually in compression.

As noted above, Farahmandi discusses a device to jet spray metal. It does not hold down each capacitor layer as each capacitor layer is placed onto the stack. The Office Action, in the Response to Arguments section of the Office Action acknowledges that Farahmandi discusses a sprayer. However, a sprayer is not capable of holding down a stack. Accordingly, none of the cited references includes a placement member that holds down each capacitor layer as each capacitor layer is placed onto the stack such that the stack is continually in compression, as claimed.

Moreover, there is no motivation to combine the cited references since they are from different fields. As noted above, Hahne is directed to a device to block a stack of object such as newspapers and magazines. One skilled in the art would not look to Hahne to solve problems in the capacitor field.

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Claims 7 and 10 depend from claim 6 and are therefore also not obvious in view of the cited references. Reconsideration and allowance is respectfully requested.

#### Claims 11-16, 18, and 20

Applicant traverses the rejection of claim 11 since, even if combined, the combination does not include each limitation recited in the claim. For instance, Applicant cannot find in the combination an upper member adapted to move while the placement member holds down each capacitor layer as each capacitor layer is placed onto the stack such that the stack is continually held down by either the upper member or the placement member until each of the plurality of capacitor layers is placed.

Again, Farahmandi discusses a device to jet spray metal. It does not hold down each capacitor layer as each capacitor layer is placed onto the stack. The Office Action, in the Response to Arguments section of the Office Action acknowledges that Farahmandi discusses a sprayer. However, a sprayer is not capable of holding down a stack. Accordingly, none of the cited references includes a placement member that holds down each capacitor layer as each capacitor layer is placed onto the stack such that the stack is continually held down by either the upper member or the placement member until each of the plurality of capacitor layers is placed, as claimed.

Moreover, there is no motivation to combine the cited references since they are from different fields. As noted above, Hahne is directed to a device to block a stack of object such as newspapers and magazines. One skilled in the art would not look to Hahne to solve problems in the capacitor field.

Claims 12-16, 18, and 20 depend from claim 11 and are therefore also not obvious in view of the cited references. Reconsideration and allowance is respectfully requested.

Allowable Subject Matter

Applicant acknowledges the allowance of claims 21-29.

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## **CONCLUSION**

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (612) 359-3267 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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